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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,347	06/28/2001	David S. Sumida	B-4034 618348-2	6455

7590 06/19/2003

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EXAMINER

PAK, SUNG H

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/894,347

Applicant(s)

SUMIDA ET AL.

Examiner

Sung H. Pak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Applicants' response filed 3/24/2003 has been carefully considered by the examiner. In view of the arguments presented in the response, the previous ground of rejection is hereby withdrawn. However, the pending claims are still unpatentable. Therefore, a new ground of rejection is provided in this office action.

Information Disclosure Statement

All references submitted in the information disclosure statement filed 3/24/2003 have been considered. Please refer to PTO-1449 enclosed herewith.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3,5,9,12,13,15,17, 21,24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Meissner et al (US 5,852,622).

Meissner et al reference was cited in the information disclosure statement.

Regarding claims 1,5,13,17, Meissner et al reference discloses a solid state waveguide with all the limitations set forth in the claims, including: a core fabricated of a lasing medium, having an outer surface (Fig. 5); a cladding fabricated of a laser-inactive material (column 9 lines 10-31); said cladding diffusion-bonded to the outer

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surface of the core (column 3 lines 9-17); wherein the lasing medium of the core comprises crystalline or glass material doped with ions (column 9 lines 10-31).

Regarding claims 3,9,12,15,21,24 Meissner et al reference discloses the core comprising a rod having polygonal cross-section (Fig. 6).

Regarding claims 24-26, Meissner et al reference discloses the cladding enveloping all of the core material (Fig. 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meissner et al (US 5,852,622).

Meissner et al reference discloses a solid state waveguide with all the limitations set forth in the claims as discussed above, except it does not teach the use of lutetium-aluminum-garnet (LuAG) material. However, LuAG material is well known and commonly used in the art for forming solid state laser devices. Such materials are advantageously used to produce solid state lasers that produce 900nm- 1000nm wavelength laser device.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Meissner et al device to use LuAG material. It would have been desirable to have a laser material for forming a solid state laser device capable of producing 900nm- 1000nm wavelength light.

Claims 2, 6-8, 10-11, 14, 18-20, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meissner et al (US 5,852,622) in view of Meissner et al (US 5,936,984).

Meissner et al ('662) reference discloses a solid state waveguide with all the limitations set forth in the claims as discussed above, except it does not teach a central tapered section bounded by un-tapered end sections.

Meissner et al ('984) reference, on the other hand, discloses a tapered, or bottlenecked, central lasing portion bounded by circular un-tapered, or flanged, end portions (Figs. 4, 7). Meissner et al teach that such a design is advantageous over the prior art because, inter alia, it improves end coupling of input light, reduces parasitic oscillations, etc. (column 3 lines 10-24). Therefore, it would have been obvious to a

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person of ordinary skill in the art at the time the invention was made to modify '662 device to have bottleneck central portion bounded by un-tapered end portions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (703) 308-4880. The examiner can normally be reached on Monday - Thursday : 6:30am-5:00pm.

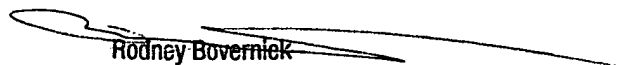
The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Sung H. Pak
Examiner
Art Unit 2874

sp
June 12, 2003



Rodney Boveriek
Supervisory Patent Examiner
Technology Center 2800